

Neogonodactylus campi, a new species of stomatopod
crustacean from the Caribbean Sea, with additional records for
N. caribbaeus (Schotte & Manning)

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Abstract.—*Neogonodactylus campi*, a sublittoral species, is described from two localities in the Caribbean Sea. It is the second western Atlantic species to be recognized that has both dorsal spinules on the telson and a spined posterolateral angle on the fifth abdominal somite. It differs from *N. caribbaeus* (Schotte & Manning) in having much shorter anterior submedian carinae on the telson and a longer basal portion on the rostral plate. The first records for *N. caribbaeus* from Florida and the Bahamas are provided.

Recognition of a new species of *Gonodactylus* from Tobago (Schotte & Manning 1993) that resembled *G. spinulosus* Schmitt in having some of the carinae of the telson armed with dorsal spinules prompted me to reexamine all of the material in the crustacean collections of the National Museum of Natural History identified as *G. spinulosus*. The new species described below was found among that material, as were the additional specimens of *Neogonodactylus caribbaeus* listed below, most of which had been identified as *G. spinulosus* in Manning (1969).

All of the American species formerly referred to *Gonodactylus* were transferred to the genus *Neogonodactylus*, type species *Gonodactylus oerstedii* Hansen, 1895, by Manning (1995).

Abbreviations used in the account below include: AWCLI, abdominal width-carapace length index (abdominal width divided by carapace length \times 100), fm (fathoms), ft (feet), leg. (collector), m (meters), mm (millimeters), n (number), sta (station).

All of the specimens are in the crustacean collection of the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (USNM). The number

following the number of specimens is total length, measured on the midline.

Neogonodactylus campi, new species
Figs. 1, 2

Material.—Dominican Republic: Navidad Bank, 20°11'N, 68°52'W, depth 14–15 fm (26–27 m), 8 ft tumbler dredge, M/V *Oregon* sta 5474, 12 Jun 1965: 1 ♀, 36 mm (holotype, USNM 126013).—Off Navidad Bank, 20°04'N, 68°53'W, depth 20–24 fm (37–44 m), 8 ft tumbler dredge, M/V *Oregon* sta 5471, 12 Jun 1965: 1 ♀, 28 mm (paratype, USNM 126014).

St. Lucia: West of Pointe du Cap, 14°06'N, 61°05'W, depth 16 fm (29 m), tumbler dredge, M/V *Oregon* sta 5946, 8 Mar 1966: 1 ♂, 26 mm (paratype, USNM 126034).

Diagnosis.—Size relatively small, total length of adults less than 40 mm. Rostral plate slightly longer than broad, basal part obtusely rounded anterolaterally, anterior margins sloping to slender median spine, latter more than 1.5 times as long as basal part of plate. Ocular scales relatively broad, flattened, separate. Thoracic somites lacking dark pigment dorsally. Ab-

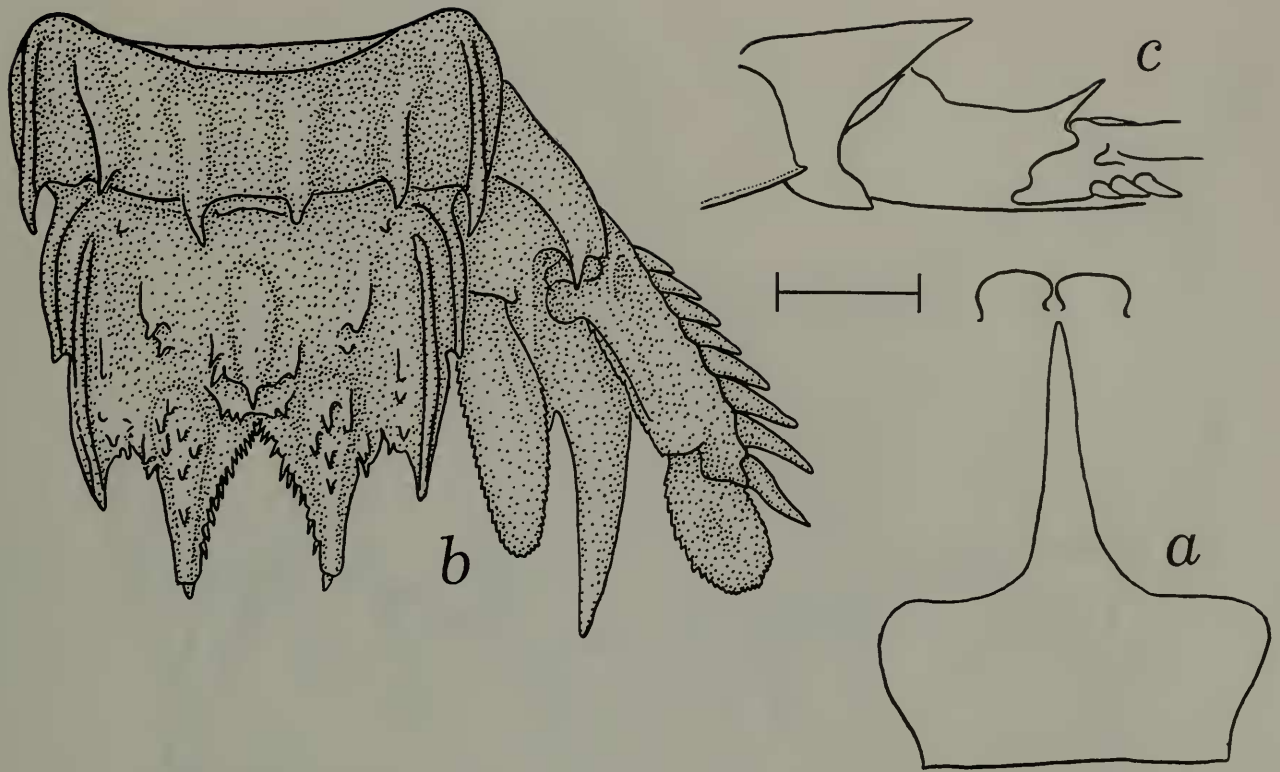


Fig. 1. *Neogonodactylus campi*, new species, female holotype, 36 mm. *a*, Rostral plate and ocular scales; *b*, Sixth abdominal somite, telson and right uropod, dorsal view (distalmost uropod spine hidden by distal segment of exopod); *c*, Fifth abdominal somite, lateral view. Scale = 1 mm (*a*), 2 mm (*b*, *c*).

domen lacking distinctive dark pigment dorsally; anterior 4 somites unarmed posterolaterally, fifth somite with sharp posterolateral spines; sixth somite with 6 carinae, each with sharp posterior spine; AWCLI of male 852, of females 857. Telson of oerstedii-type, with dorsal tubercles on carinae, latter sharp, intermediates cristate in female; anterior tubercles of telson each produced into erect spinule; median carina ending in sharp spine; accessory median carinae forming anchor posteriorly, extending anteriorly about $\frac{1}{3}$ length of median carina, with 1–3 dorsal and no posterior tubercles; knob evenly rounded, with 4–5 tubercles; anterior submedian carinae short, not extending posteriorly beyond bases of accessory medians, with terminal spine followed posteriorly by single sharp, erect tubercle; submedian marginal teeth slender, movable apices present, with 3–7 sharp dorsal tubercles, inner margin lined with spiniform denticles; carina of intermediate tooth cristate, usually unarmed (with 5–6 spi-

nules in 1 specimen only); accessory intermediate carinae cristate, with 1–5 spines dorsally, 1 usually terminal; inner intermediate denticle with short dorsal carina, spined posteriorly, both intermediate denticles with sharp apical spinule; lateral teeth sharp, unarmed dorsally. Uropod with 9–11 graded, movable spines laterally.

Size.—Total lengths of male ($n = 1$), 26 mm; of females ($n = 2$), 28 and 36 mm. Other measurements of female holotype, total length 36 mm: carapace length 7.7 mm; rostral plate length 2.8 mm, width 2.5 mm; fifth abdominal somite width 6.6 mm; telson length 5.5 mm, width 5.3 mm.

Remarks.—*Neogonodactylus campi* is the second species to be recognized from localities in the western Atlantic in which: (a) the fifth abdominal somite is armed posterolaterally; (b) some dorsal carinae of the telson are armed with sharp spinules or tubercles; and (c) there are no patches of dark pigment on the sixth thoracic somite and abdomen. In these features it resembles *N.*

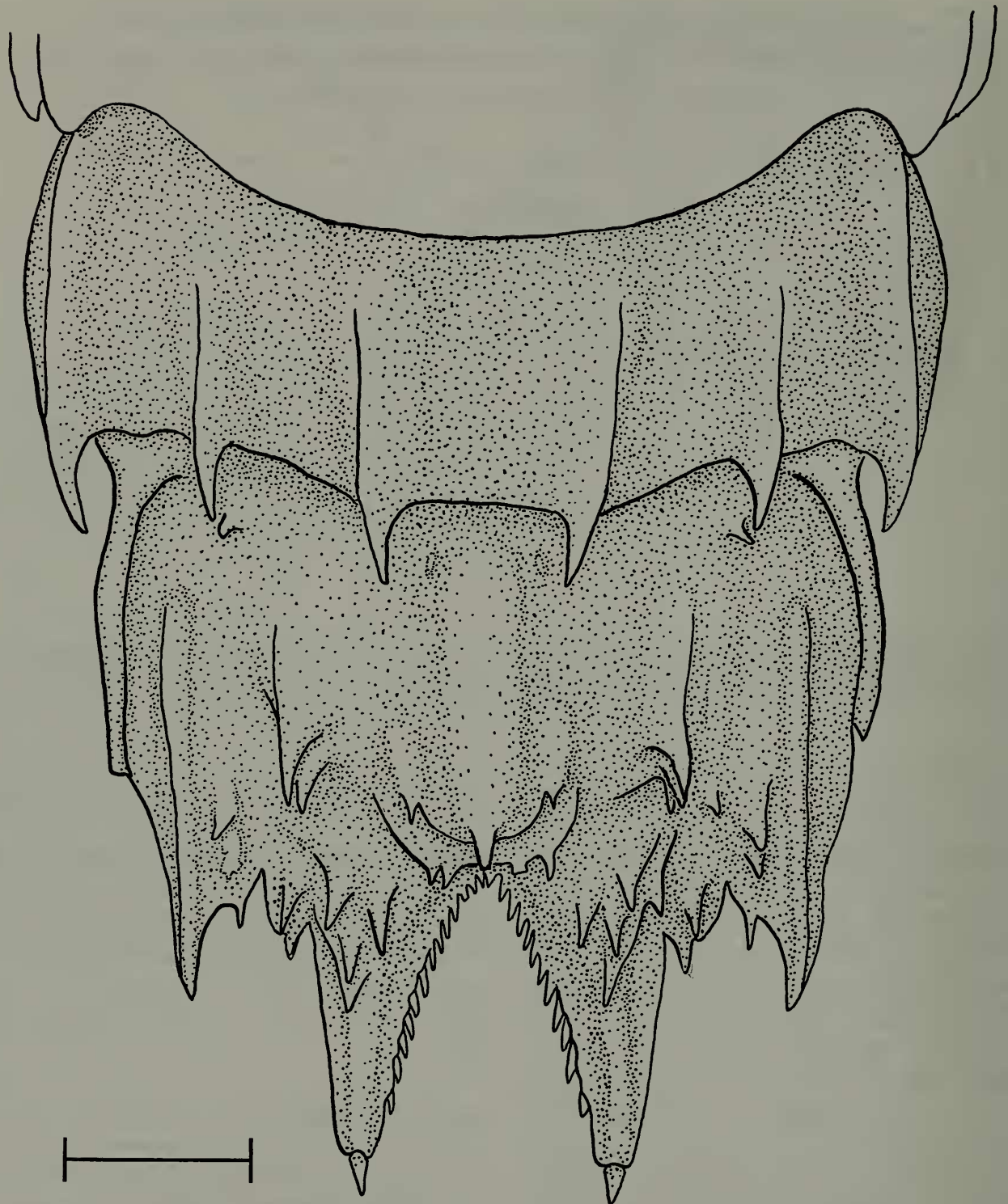


Fig. 2. *Neogonodactylus campi*, new species, female paratype, 28 mm. Telson, dorsal view. Scale = 2 mm.

caribbaeus (Schotte & Manning, 1993) and differs from *N. spinulosus* (Schmitt, 1924). It differs from *N. caribbaeus* in having shorter anterior submedian carinae on the telson armed with a posterior spine, followed posteriorly by a sharp tubercle, as well as a longer basal part of the rostral plate. *Neogonodactylus campi* differs from *N. minutus* (Manning, 1969), the only other

species in the western Atlantic with spinules or tubercles on the dorsal carinae of the telson, in having many more dorsal tubercles on those carinae.

Variation in size and distribution of dorsal tubercles on the telson of two different females is shown in Figs. 1b and 2.

Etymology.—Named for my colleague and friend David K. Camp, Florida Depart-

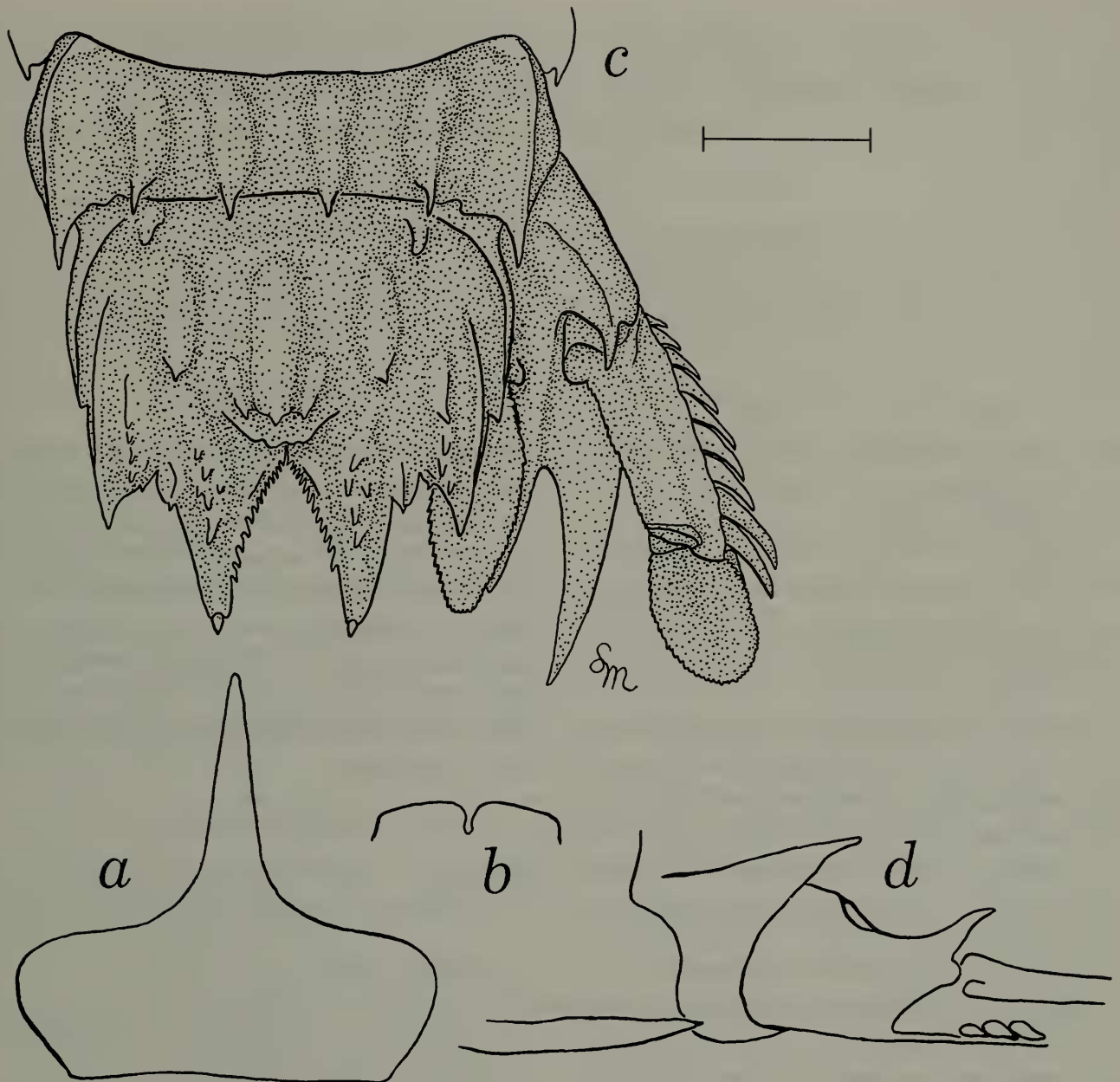


Fig. 3. *Neogonodactylus caribbaeus* (Schotte & Manning), Florida, female, 36 mm. *a*, Rostral plate; *b*, ocular scales; *c*, sixth abdominal somite, telson, and uropod; *d*, posterolateral angle of fifth abdominal somite, sixth abdominal somite, and base of uropod, lateral view. Scale = 1 mm (*a*, *b*), 2 mm (*c*, *d*).

ment of Environmental Protection, Florida Marine Research Institute, St. Petersburg, Florida. David has added much to our knowledge of the diverse and important marine invertebrate fauna of Florida through his own research on stomatopods and other groups, and through his efforts to have the extensive Hourglass collections of invertebrates studied by others and published by the Institute under his guidance. Recognition of his contributions to our knowledge of systematics of marine crustaceans is long overdue.

Neogonodactylus caribbaeus
(Schotte & Manning, 1993)

Fig. 3

Gonodactylus spinulosus.—Manning, 1969: 299 [part, all specimens listed below except for those from the Bahamas; not *G. spinulosus* Schmitt, 1924].

Gonodactylus caribbaeus Schotte & Manning, 1993:568, fig. 1.

Material.—Florida: Monroe County, ¼ mile (ca 400 m) south-southwest of Alligator Reef Light [24°51'N, 80°38'W], depth

15 ft (about 5 m), leg. W. A. Starck, II, 26 Aug 1961: 1 ♀, 36 mm (USNM 124639).—200 yards (ca 183 m) southwest of Alligator Reef Light, depth 15–20 ft (4.6–6 m), leg W. A. Starck, II, 7 Jan 1962: 1 ♂, 25 mm (USNM 119320).

Bahama Islands: Providence Channel, off Abaco Island, 25°50'N, 77°10'W, depth 12 fm (22 m), R/V *Silver Bay* sta 5133, 1 Oct 1963: 1 ♂, 30 mm, 1 ♀, 21 mm (USNM 126033).

U.S. Virgin Islands: St. John, Coral Harbor, base of Coral Bay (18°21'N, 64°43'W), leg. L. P. Thomas, 20 Dec 1958: 1 ♂, 25 mm (USNM 124636).

Barbuda: Martello Tower (13°53'N, 60°53'W), reefs off south coast, Smithsonian-Bredin Expedition sta 92-56, leg. D. V. Nicholson, 7 Apr 1956: 2 ♀♀, 17 and 20 mm (USNM 124633).

Mexico: Quintana Roo, Ascension Bay (19°40'N, 87°30'W), behind central part of Nicchehabin Reef, Smithsonian-Bredin Expedition sta 67–60, 13 Apr 1960: 1 juvenile ♀, 14 mm (USNM 124634).—Same locality, depth 4–6 ft (1–2 m), Smithsonian-Bredin Expedition sta 72-60, 14 Apr 1960: 1 juvenile ♀, 12 mm (USNM 124635).

Size.—Total lengths of males ($n = 3$), 25–30 mm; of females ($n = 6$), 12–36 mm. The specimens studied by Schotte & Manning (1993) were up to 33 mm long.

Remarks.—The material reported here extends the range of this species from Tobago in the southern Caribbean to other localities in the Caribbean, and provide the first records for the species from Florida, the Bahamas, the U.S. Virgin Islands, Barbuda, and Mexico.

In addition to differing from *N. campi* in having longer anterior submedian carinae

on the telson, extending posteriorly beyond the bases of the accessory median carinae and less produced posterior spines on the anterior submedian carinae, *N. caribbaeus* has a rostral plate with a markedly different shape. In *N. caribbaeus* (Fig. 3a) the basal part of the plate is quite short and broadly rounded laterally, whereas in *N. campi* (Fig. 1a) the basal part of the plate is longer and has a distinct angle anterolaterally.

Acknowledgments

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